LakelandPower
200 – 395 Centre St N, Huntsville, ON P1H 2M2
Phone (705) 789-5442 Toll Free 1-888-282-7711
Fax (705) 789-3110 service@lakelandpower.on.ca

February 29, 2012

VIA E-MAIL

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street
Toronto, ON
M4P 1E4

Dear Ms. Walli:

RE: Lakeland Power Distribution Ltd.
Board File No. EB-2011-0413
2012 Smart Meter Cost Recovery Application – Responses to VECC Interrogatories

Lakeland Power Distribution Ltd. is submitting responses to the VECC Interrogatories filed in this matter.

An electronic copy of the responses (pdf and models in excel) will be submitted through the OEB e-Filing services and delivered by e-mail to the intervenor.

If you have any further questions, please do not hesitate to contact me.

Respectfully submitted,

Margaret Maw
CFO
Lakeland Holding Ltd.

Lakeland Power Distribution Ltd.

Responses to VECC Interrogatories for 2012 Smart Meter Cost Recovery Application

(EB-2011-0413)

Effective May 1, 2012

IN THE MATTER OF the *Ontario Energy Board Act, 1998, being Schedule B to the Energy Competition Act, 1998, S.O. 1998, c.15;*

AND IN THE MATTER OF an Application by Lakeland Power Distribution Ltd. to the Ontario Energy Board for an Order or Orders approving rate riders for the recovery, incremental revenue and disposition of Smart Meter costs (SMDR and SMIRR) as of May 1, 2012.

Table of Contents

VECC Question # 1

Reference: Manager's Summary, Meter Deployment, Page 10

Preamble: Lakeland has forecasted the total number of smart meters installed by December 31, 2012 as 9,620. Lakeland indicates that by late 2009, Lakeland contracted three external installers to install polyphase smart meters, single phase transformer meters and skipped smart meters.

a) Please complete the following table to show the type and cost of meters installed by rate class:

Class	Type of Meter	Quantity	Installed Cost	Average Cost
Residential				
GS<50 kW				

Response

a) Lakeland has completed the requested table summarizing the type of meter, number of meters installed, total installed meter cost and average cost split by customer class. The total installed cost ties to the sum of costs in categories 1.1.1 and 1.1.2 on Sheet 2 of Lakeland's Smart Meter Cost model.

Class	Type of Meter	Quantity	Installed Cost	Average Cost
Residential	1 Phase	7508	$924,789	$123.17
	3 Phase	547	$197,467	$361.00
GS<50 kW	1 Phase	1000	$123,170	$123.17
	3 Phase	565	$203,965	$361.00
TOTAL		**9620**	**$1,449,391**	

VECC Question # 2

Reference: Manager's Summary, AMI Selection, Page 8

Preamble: By early January 2009, Lakeland decided upon the purchasing option to own its AMI system but have it operated by the AMI vendor.

a) Please provide the cost of the AMI system.

a) Please define collectors and repeaters.

b) Please explain the delays in finalizing the contract with Elster and how long it took to resolve and why.

c) Please provide an update on the finalization of the Elster Service Level Agreement (SLA). Does Lakeland anticipate any delays?

Response

a) The AMI refers to the Advanced Metering Infrastructure which encompasses the smart meter and its communicating device (AMCD), the collectors/gatekeepers (AMRC), the MAS meter repository (AMCC) and the communication network between these devices (LAN). The total cost of Lakeland's AMI can be found on Sheet 2 of the Smart Meter Cost Recovery Model and Table 2a and 2b of our Manager's Summary. Total AMI capital costs as of December 2011 were $2,153,530 with an additional $17,107 forecasted for 2012.

a) A collector, now also referred to as a gatekeeper, is technically named an advanced metering regional collector (AMRC). It is a metering device that collects and stores the interval meter reads directly from each smart meter (AMCD) over the LAN. The meter reads stored in each collector are then transferred over the WAN to the MAS meter repository (AMCD) daily. The number of collectors in an area is dictated by the terrain and any surrounding interfering objects which can disrupt this chain of communication of meter read data.

   A repeater is a supplementary meter device which may be required to aid in the communication of any meters that are not communicating with a collector in the area. If a meter or group of meters are too far from or are subject to some form of interference with a collector, but an additional collector is not warranted for the number of meters, a repeater can be installed to boost the communication of these meters to ensure the meter data reaches the collector for transfer to the MAS meter repository.

b) In order to finalize the contract with Elster, all test scenarios for System Acceptance Testing needed to be complete and the supporting documents for each test scenario needed to be compiled. This was a lengthy and time consuming project, for which Lakeland used the services of Util-Assist, the metering system and technology consultants contracted through the efforts of the Cornerstone Hydro Electric Concepts (CHEC) utility co-operative. Util-Assist facilitated this process with Elster on behalf of Lakeland, coordinating and preparing the documentation which was then made available to Lakeland in February 2012. Test 4.3.1, the Last Gasp

functionality is, at this time, the source of Lakeland's delay in System Acceptance Testing sign-off. This test has been listed as a conditional pass, conditional on a resolution being found by Elster.

The Last Gasp test is a collector (also known as a gatekeeper) call-in and EA_MS settings issue for all of the utilities that have completed System Acceptance Testing. This test is listed as a conditional pass as outage messages are not always received by the collectors. Since the Last Gasp test is listed as a conditional pass and sign-off is at the discretion of the utility, Lakeland is following Util-Assist's recommendation to require Elster to correct/address this outstanding issue prior to System Acceptance Testing being deemed successful. Elster is aware of this issue and they are working to resolve the problem.

c) On Lakeland's behalf, Util-Assist is currently following up with Elster to check for any progress that has been made with test 4.3.1 and what Elster's plan is to resolve it. Lakeland will hold off on signing off on the System Acceptance Testing documentation until this test issue is resolved. Further delays in finalizing the Elster SLA will be directly attributable to the length of time it takes Elster to correct this Last Gasp issue. Once this issue is resolved, Lakeland will sign-off on System Acceptance Testing and the SLA will be finalized.

VECC Question # 3

Reference: Manager's Summary, Meter Deployment, Page 10

Preamble: Lakeland indicates that Olameter honoured Trilliant's favourable pricing and installation schedule.

a) Please indicate if Olameter placed any limitations such as time on the pricing and installation schedule.

Response

a) No, Olameter did not place any limitations on Lakeland for the mass deployment of smart meters.

VECC Question # 4

Reference: Manager's Summary, Meter Deployment, Page 10

Preamble: Lakeland indicates it rented an offsite storage warehouse space to provide a smart meter depot for the installers.

a) Please explain why Lakeland's existing facilities were not suitable for this purpose.

b) Please provide the monthly cost of renting the space.

Response

a) Lakeland's operations facility in Bracebridge was not suitable during the smart meter deployment phase due to limited availability of storage space. Lakeland has room to accommodate the storage of a meter stock of 200-300 meters at one time but does not have the capacity to store 9,000 meters at once. The majority of Lakeland's smart meters were delivered in April 2009 for installation scheduled from May 2009 to November 2009. The offsite storage location was rented from April 2009 to December 2009 to store these thousands of smart meters before they were deployed as well as house the old conventional meters that were removed from service before they were disposed of. This offsite location also acted as the headquarters hub for the smart meter coordinator and the installation contractors as space was limited to accommodate these extra bodies at the Bracebridge operations facility.

b) The monthly cost of renting this offsite storage space was $1,000. As mentioned above, the facility was rented from April 2009 to early December 2009 for a total cost of $8,250.

VECC Question # 5

Reference: Manager's Summary, Meter Deployment, Page 10

Preamble: Lakeland indicates that by December 2009, 8,945 smart meters were installed: 7,722 by Olameter and 1,223 by LPDL contract installers.

a) Please provide the meter costs, installation costs, other capital costs and OM&A costs separately for Olameter and LPDL contract installers.

Response

a) Table 1 below summarizes the meter costs, installation costs, other capital costs and OM&A costs incurred from Olameter and Lakeland contract installers to December 2011. The total capital costs incurred for meters installed by Olameter contractors was $176,076 and the total capital costs incurred for meters installed by Lakeland's external installers was $56,898, totaling $232,974. This total of $232,974 ties to the Total Installation Capital Costs category 1.1.2 to 2011 per Sheet 2 of the Smart Meter Cost Recovery model. Lakeland's contractor installed cost per meter is higher than Olameter's installed cost per meter due to the more complex installs for 3 phase services and trouble locations requiring more time to repair the meter base before installing the smart meter that Lakeland's contractor installers dealt with.

Table 1: Summary of Contract Installation Costs

Installation Costs	Olameter Installed Meter Costs	LPDL Contractor Installed Meter Costs	TOTAL Installation Costs
Meter Costs	$ -	$ -	$ -
Installation Costs	$ 146,732	$ 50,153	$ 196,885
Other Capital Costs (Offsite Storage and Hardware Supplies - jaws, bases, antennas, cables, etc)	$ 29,344	$ 6,745	$ 36,089
Total Contract Installation Capital Costs	$ 176,076	$ 56,898	$ 232,974
OM&A Costs	$ -	$ -	$ -
Total Contract Installation OM&A Costs	$ -	$ -	$ -
TOTAL Smart Meter Contract Installation Costs to 2009	$ 176,076	$ 56,898	$ 232,974
Meters Installed to 2011	7,722	1,775	9,497
Installation Cost per Meter	$ 22.80	$ 32.06	

VECC Question # 6

Reference: Manager's Summary, Web Presentment, Page 16

Preamble: Lakeland indicates that in 2008 it purchased and implemented the Harris eCARe software, a web presentment tool fully integrated with LPDL's Harris North Star billing system. The MDM/R has become accessible to provide this data in mid 2011 but in order to integrate with it, LPDL will be required to incur more costs.

a) Please provide a summary of the types of costs, timing and amounts Lakeland will incur.

Response

a) See Response to Board Staff Interrogatory Question # 5.

VECC Question # 7

Reference: Manager's Summary, Annual Security Audit, Page 16

Preamble: Lakeland indicates that it has budgeted for an annual security audit.

a) Please provide the cost of the annual audit.

Response

a) Lakeland has estimated the annual security audit expense to be $12,300. In 2012, $8,300 will be incurred to n-Dimensions Solutions to conduct the security audit and $4,000 to an IT consultant for assistance in providing system access and information during the security audit process.

VECC Question # 8

Reference: Manager's Summary, Smart Meter Costs, Table 1

Preamble: Table 1 provides a summary of smart meter capital and OM&A costs including MDM/R and TOU Beyond Minimum Functionality.

a) Please provide the total smart meter capital and OM&A costs for the years 2006, 2007, 2008, 2009, 2010, 2011 and 2012 by customer class.

Response

a) Lakeland tracked the Smart Meter Funding Adder amounts collected by rate class. However, Lakeland did not track costs in 1555 or 1556 by rate class which is consistent with Powerstream as noted in a comment filed in Powerstream's 2010 Smart Meter Cost Recovery Application Interrogatory Responses (EB-2010-0209). This is also consistent with the Board's guidance in the Accounting Procedures Handbook; related Frequently Asked Questions; and Guideline G-2008-0002 which was current at the time of Lakeland's Smart Meter Cost Recovery Application filing. As well, per Powerstream's Smart Meter Cost Recovery Decision and Order (EB-2010-0209) issued November 2010, page 12 states "The Board finds that

a cost allocation approach based on class specific revenue requirement calculations offset by class specific smart meter funding to be inconsistent with previous Board decisions and that there has been no clear requirement to track costs by class." In the same document, page 12 also states "The Board also finds the cost allocation approach submitted by Board Staff and accepted by PowerStream to be reasonable". Lakeland has used a cost allocation approach similar to PowerStream in allocating the smart meter revenue requirement as illustrated in Table 3c in Lakeland's Smart Meter Cost Recovery Application Manager's Summary.

Lakeland has summarized the smart meter capital and OM&A costs by customer class by year in Table 2a and Table 2b below.

Table 2a: Summary of Smart Meter Capital and OM&A Costs Including MDM/R and TOU Beyond Minimum Functionality for Residential Customer Class

Costs for Residential Customer Class	Actual Costs in 2007	Actual Costs in 2008	Actual Costs in 2009	Actual Costs in 2010	Actual Costs in 2011	Actual Costs in 2012	TOTAL RESIDENTIAL COSTS	TOTAL Cost per Residential Smart Meter
Total of Smart Meter Capital Costs	$ 35,146	$ 54,175	$ 1,278,734	$ 373,118	$ 66,773	$ 13,258	$ 1,821,202	**$ 226.10**
Total of Smart Meter OM&A Costs	$ -	$ -	$ 26,183	$ 44,718	$ 66,831	$ 88,931	$ 226,664	**$ 28.14**
Total of Smart Meter Costs for RESIDENTIAL Customer Class	$ 35,146	$ 54,175	$ 1,304,917	$ 417,836	$ 133,604	$ 102,189	$ 2,047,866	
Total Smart Meters Installed for Residential Customer Class							**8,055**	

Table 2b: Summary of Smart Meter Capital and OM&A Costs Including MDM/R and TOU Beyond Minimum Functionality for GS<50 Customer Class

Costs for GS<50 Customer Class	Actual Costs in 2007	Actual Costs in 2008	Actual Costs in 2009	Actual Costs in 2010	Actual Costs in 2011	Actual Costs in 2012	TOTAL GS<50 COSTS	TOTAL Cost per GS<50 Smart Meter
Total of Smart Meter Capital Costs	$ 6,844	$ 10,550	$ 351,291	$ 78,994	$ 14,448	$ 3,849	$ 465,977	**$ 297.75**
Total of Smart Meter OM&A Costs	$ -	$ -	$ 5,099	$ 8,709	$ 13,015	$ 17,319	$ 44,141	**$ 28.21**
Total of Smart Meter Costs for GS<50 Customer Class	$ 6,844	$ 10,550	$ 356,390	$ 87,703	$ 27,463	$ 21,168	$ 510,118	
Total Smart Meters Installed for GS<50 Customer Class							**1,565**	

VECC Question # 9

Reference: Smart Meter Model, Smart Meter Capital Cost and Operational Expense Data

a) Please provide a breakdown of costs on Sheet 2 (Smart_Meter_Costs) by customer class.

Response

a) Lakeland has allocated the capital and OM&A costs from Sheet 2 of the Smart Meter Cost Recovery Model by customer class. Appendix 1 is the 'Residential' Smart Meter Cost Recovery Model including only the costs allocated to and SMFA revenues collected from the Residential customer class. Appendix 2 is the 'GS<50' Smart Meter Cost Recovery Model including only the costs allocated to and SMFA revenues collected from the GS<50 customer class. The total smart meter capital costs of

$2,287,179 can be broken down as: $1,821,201 to the Residential customer class and $465,978 to the GS<50 customer class. The total smart meter OM&A costs of $270,805 can be broken down as: $226,664 to the Residential customer class and $44,141 to the GS<50 customer class.

Meter costs in Section 1.1 have been allocated based on the average cost of single phase versus three phase meters installed in each customer class. The average cost of a single phase meter is $95 whereas the average cost of a three phase meter is $306. By 2012 Lakeland has forecasted to install 8,055 residential meters, 7,508 of those being single phase and 547 being three phase. For GS<50 customers, Lakeland has forecasted to install a total of 1,565 meters, 1,000 of those being single phase and 565 being three phase. Thus, the allocation for meter costs was 76.7% to the Residential customer class and 23.3% to the GS<50 customer class.

Installation costs in Section 1.2 have been allocated based on the average cost to install single phase versus three phase meters installed in each customer class. Lakeland has averaged that a single phase meter can be installed in half an hour whereas a three phase meter would be installed in an hour, due to the increased complexity of the installation. Lakeland has thus allocated installation costs as 80.2% to the Residential customer class and 19.8% to the GS<50 customer class.

All remaining smart meter capital and OM&A costs have been allocated strictly based on the number of meters installed for each customer class. Lakeland believes that these costs are not specific to the actual type of meter installed at a premise and are therefore the same regardless of the type of meter. Thus, based on Lakeland forecasting to install 8,055 smart meters for the Residential customer class and 1,565 smart meters to the GS<50 customer class, 83.7% of these smart meter costs were allocated to the Residential customer class and 16.3% were allocated to the GS<50 customer class.

VECC Question # 10

Reference: Manager's Summary, Smart Meter Costs, Table 2(a) and Table 2 (b)

a) Please recast Table 2 (a) and Table 2 (b) by rate class.

Response

a) Lakeland has summarized the Smart Meter Capital and OM&A costs to 2011 by customer class in Table 3a. The 2012 Smart Meter Capital & OM&A costs by customer class are shown in Table 3b.

Table 3a: Breakdown of Smart Meter Costs by Customer Rate Class for SMDR

Smart Meter Costs for RESIDENTIAL Customer Class	Costs for Residential Meters Installed by 2007	Costs for Residential Meters Installed by 2008	Costs for Residential Meters Installed by 2009	Costs for Residential Meters Installed by 2010	Costs for Residential Meters Installed by 2011	TOTAL
Number of Smart Meters Installations - Residential	**0**	**0**	**7570**	**235**	**130**	**7935**
1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	$ -	$ -	$ 1,017,172	$ 77,752	$ 16,435	$1,111,359
1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)	$ -	$ -	$ 134,315	$ 4,625	$ 2,107	$ 141,047
1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	$ -	$ -	$ 17,442	$ 74,468	$ 159	$ 92,069
1.4 WIDE AREA NETWORK (WAN)	$ -	$ -	$ -	$ -	$ -	$ -
1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY	$ 35,146	$ 33,359	$ 107,149	$ 168,276	$ 21,991	$ 365,921
Total Capital Costs Related to Minimum Functionality - Residential	**$ 35,146**	**$ 33,359**	**$ 1,276,078**	**$ 325,121**	**$ 40,692**	**$1,710,396**
1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY (MDM/R & TOU)	$ -	$ 20,816	$ 2,653	$ 47,997	$ 26,081	$ 97,547
Total Smart Meter Capital Costs - Residential Customer Class	**$ 35,146**	**$ 54,175**	**$ 1,278,731**	**$ 373,118**	**$ 66,773**	**$1,807,943**
2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	$ -	$ -	$ 8,889	$ 5,159	$ 5,605	$ 19,653
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)	$ -	$ -	$ -	$ -	$ -	$ -
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	$ -	$ -	$ -	$ 3,959	$ 9,248	$ 13,207
2.4 WIDE AREA NETWORK (WAN)	$ -	$ -	$ 2,991	$ 5,205	$ 5,510	$ 13,706
2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	$ -	$ -	$ 12,375	$ 22,464	$ 32,777	$ 67,616
Total OM&A Costs Related to Minimum Functionality - Residential	**$ -**	**$ -**	**$ 24,255**	**$ 36,787**	**$ 53,140**	**$ 114,182**
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY	$ -	$ -	$ 1,927	$ 7,931	$ 13,692	$ 23,550
Total Smart Meter OM&A Costs - Residential Customer Class	**$ -**	**$ -**	**$ 26,182**	**$ 44,718**	**$ 66,832**	**$ 137,732**

Smart Meter Costs for GS<50 Customer Class	Costs for GS<50 Meters Installed by 2007	Costs for GS<50 Meters Installed by 2008	Costs for GS<50 Meters Installed by 2009	Costs for GS<50 Meters Installed by 2010	Costs for GS<50 Meters Installed by 2011	TOTAL
Number of Smart Meters Installations - GS<50	**0**	**0**	**1375**	**186**	**1**	**1562**
1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	$ -	$ -	$ 300,354	$ 21,474	$ 4,645	$ 326,473
1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)	$ -	$ -	$ 26,157	$ 901	$ 410	$ 27,468
1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	$ -	$ -	$ 3,397	$ 14,502	$ 31	$ 17,930
1.4 WIDE AREA NETWORK (WAN)	$ -	$ -	$ -	$ -	$ -	$ -
1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY	$ 6,844	$ 6,496	$ 20,867	$ 32,771	$ 4,283	$ 71,261
Total Capital Costs Related to Minimum Functionality - GS<50	**$ 6,844**	**$ 6,496**	**$ 350,775**	**$ 69,648**	**$ 9,369**	**$ 443,132**
1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY (MDM/R & TOU)	$ -	$ 4,054	$ 517	$ 9,347	$ 5,079	$ 18,997
Total Smart Meter Capital Costs - GS<50 Customer Class	**$ 6,844**	**$ 10,550**	**$ 351,292**	**$ 78,995**	**$ 14,448**	**$ 462,129**
2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	$ -	$ -	$ 1,732	$ 1,005	$ 1,091	$ 3,828
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)	$ -	$ -	$ -	$ -	$ -	$ -
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	$ -	$ -	$ -	$ 771	$ 1,801	$ 2,572
2.4 WIDE AREA NETWORK (WAN)	$ -	$ -	$ 582	$ 1,014	$ 1,073	$ 2,669
2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	$ -	$ -	$ 2,410	$ 4,375	$ 6,383	$ 13,168
Total OM&A Costs Related to Minimum Functionality - GS<50	**$ -**	**$ -**	**$ 4,724**	**$ 7,165**	**$ 10,348**	**$ 22,237**
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY	$ -	$ -	$ 375	$ 1,545	$ 2,666	$ 4,586
Total Smart Meter OM&A Costs - GS<50 Customer Class	**$ -**	**$ -**	**$ 5,099**	**$ 8,710**	**$ 13,014**	**$ 26,823**
TOTAL Smart Meter Capital Costs	**$ 41,990**	**$ 64,725**	**$ 1,630,023**	**$ 452,113**	**$ 81,221**	**$2,270,072**
TOTAL Smart Meter OM&A Costs	**$ -**	**$ -**	**$ 31,281**	**$ 53,428**	**$ 79,846**	**$ 164,555**

Table 3b: Breakdown of Smart Meter Costs by Customer Rate Class for SMIRR

Smart Meter Costs for RESIDENTIAL Customer Class	Costs for Residential Meters Installed by 2012
Number of Smart Meters Installations - Residential	**120**
1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	$ 13,258
1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)	$ -
1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	$ -
1.4 WIDE AREA NETWORK (WAN)	$ -
1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY	$ -
Total Capital Costs Related to Minimum Functionality - Residential	**$ 13,258**
1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY (MDM/R & TOU)	$ -
Total Smart Meter Capital Costs - Residential Customer Class	**$ 13,258**
2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	$ 5,742
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)	$ -
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	$ 9,492
2.4 WIDE AREA NETWORK (WAN)	$ 5,775
2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	$ 43,742
Total OM&A Costs Related to Minimum Functionality - Residential	**$ 64,751**
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY	$ 24,181
Total Smart Meter OM&A Costs - Residential Customer Class	**$ 88,932**

Smart Meter Costs for GS<50 Customer Class	Costs for GS<50 Meters Installed by 2012
Number of Smart Meters Installations - GS<50	3
1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	$ 3,849
1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)	$ -
1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	$ -
1.4 WIDE AREA NETWORK (WAN)	$ -
1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY	$ -
Total Capital Costs Related to Minimum Functionality - GS<50	**$ 3,849**
1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY (MDM/R & TOU)	$ -
Total Smart Meter Capital Costs - GS<50 Customer Class	**$ 3,849**
2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	$ 1,118
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)	$ -
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	$ 1,848
2.4 WIDE AREA NETWORK (WAN)	$ 1,125
2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	$ 8,518
Total OM&A Costs Related to Minimum Functionality - GS<50	**$ 12,609**
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY	$ 4,709
Total Smart Meter OM&A Costs - GS<50 Customer Class	**$ 17,318**

TOTAL Smart Meter Capital Costs	**$ 17,107**
TOTAL Smart Meter OM&A Costs	**$ 106,250**

VECC Question # 11

Reference: Manager's Summary, Smart Meter Disposition Rate Rider Calculation, Page 25

Preamble: Lakeland has allocated the outstanding smart meter true-up balance between the residential and GS < 50 kW customer classes. The Return (deemed interest plus return on equity) and Amortization have been allocated based on the Weighted Average of the Residential and GS< 50 kW 1860 Weighted Meter Capital (CWMC) allocators in the 2006 Cost Allocation Review.

a) Please provide the rationale.

Response

a) In the Board's decision with respect to PowerStream's 2011 Smart Meter Disposition Application (EB-2011-0128), the Board approved a class specific rate rider using an allocation methodology based on a class

specific revenue requirement. Based on recent Board Decision for 2012 cost of service applications, it is Lakelands understanding that PowerStream's method of allocating smart meter cost to rate classes is the Board's preferred method. As a result, Lakeland has attempted to use the PowerStream method to determine the Smart Meter Disposition Rider by rate class. With regards to return and amortization, it is Lakeland's understanding that the PowerStream method suggest these costs should be allocated based on the method used to allocate Account 1860 from the cost allocation model. In the cost allocation model the allocator for account 1860 is "CWMC" or customer weighted meter cost. Since Lakeland has not updated its cost allocation model since 2006, Lakeland took the CWMC allocator from the 2006 cost allocation model to allocate the return and amortization to rate class.

VECC Question # 12

Reference: Board Guideline G-2011-0001, Smart Meter Funding and Cost Recovery – Final Disposition, dated December 15, 2011, Page 19

Preamble: The Guideline states, "The Board views that, where practical and where data is available, class specific SMDRs should be calculated on full cost causality.

a) Please provide the information in Table 3(a) Revenue Requirement Calculation for Disposition Rate Rider and Table 3 (b) on page 24 of the Manager's Summary by rate class.

Response

a) Lakeland has summarized the Revenue Requirement and Smart Meter Disposition Rate Rider (SMDR) for the Residential customer class in Tables 4a, 4b and 4c. The Revenue Requirement and Smart Meter Disposition Rate Rider (SMDR) for the GS<50 customer class are summarized in Tables 4d, 4e and 4f.

Table 4a: Revenue Requirement Calculation for Disposition Rate Rider for Residential Customer Class

Rate Base	2007 Amount	2008 Amount	2009 Amount	2010 Amount	2011 Amount	Total Amount
Net Fixed Assets	$ 16,987	$ 58,571	$ 696,658	$ 1,440,046	$ 1,536,830	$ 3,749,092
Working Capital Allowance	$ -	$ -	$ 3,928	$ 6,708	$ 10,025	$ 20,661
Total Rate Base	**$ 16,987**	**$ 58,571**	**$ 700,586**	**$ 1,446,754**	**$ 1,546,855**	**$ 3,769,753**

Revenue Requirement	2007 Amount	2008 Amount	2009 Amount	2010 Amount	2011 Amount	Total Amount
Short Term Interest	$ -	$ 103	$ 1,253	$ 770	$ 823	$ 2,949
Long Term Interest	$ 531	$ 1,265	$ 19,051	$ 41,805	$ 44,698	$ 107,350
Return on Equity	$ 764	$ 2,462	$ 25,997	$ 46,354	$ 49,561	$ 125,138
Total Return	$ 1,295	$ 3,830	$ 46,301	$ 88,929	$ 95,082	$ 235,437
OM&A	$ -	$ -	$ 26,183	$ 44,718	$ 66,831	$ 137,732
Amortization	$ 1,172	$ 4,981	$ 51,755	$ 113,320	$ 133,003	$ 304,231
Grossed-up PILs	$ 376	$ 8	$ 8,174	$ 7,547	$ 11,180	$ 27,285
Revenue Requirement	$ 2,843	$ 8,819	$ 132,413	$ 254,514	$ 306,096	$ 704,685
Interest on Deferred OM&A and Amortization	$ 28	$ 146	$ 513	$ 1,301	$ 5,028	$ 7,016
Total RESIDENTIAL Revenue Requirement	**$ 2,871**	**$ 8,965**	**$ 132,926**	**$ 255,815**	**$ 311,124**	**$ 711,701**

Table 4b: Disposition Rate Rider to Recover Actual Smart Meter Costs to December 31, 2011 for Residential Customer Class

Revenue Requirement 2007	$ 2,871	
Revenue Requirement 2008	$ 8,965	
Revenue Requirement 2009	$ 132,926	
Revenue Requirement 2010	$ 255,815	
Revenue Requirement 2011	$ 311,124	
Total Revenue Requirement		$ 711,701
Smart Meter Funding Adder Collected from Residential	-$ 590,375	
Carrying Cost on Smart Meter Funding Adder	-$ 19,031	-$ 609,406
Smart Meter True-up Balance for RESIDENTIAL Disposition Rider		**$ 102,295**

Table 4c: Calculation of Disposition Rate Rider for Residential Customer Class

	Residential
Total Smart Meter True-up for Disposition	$ 102,295
Number of Customers	7,935
Total Monthly Disposition Rate Rider	**$ 1.07**

Table 4d: Revenue Requirement Calculation for Disposition Rate Rider for GS<50 Customer Class

Rate Base	2007 Amount	2008 Amount	2009 Amount	2010 Amount	2011 Amount	Total Amount
Net Fixed Assets	$ 3,308	$ 11,406	$ 185,098	$ 378,948	$ 394,526	$ 973,286
Working Capital Allowance	$ -	$ -	$ 765	$ 1,306	$ 1,952	$ 4,023
Total Rate Base	**$ 3,308**	**$ 11,406**	**$ 185,863**	**$ 380,254**	**$ 396,478**	**$ 977,309**

Revenue Requirement	2007 Amount	2008 Amount	2009 Amount	2010 Amount	2011 Amount	Total Amount
Short Term Interest	$ -	$ 20	$ 332	$ 202	$ 211	$ 765
Long Term Interest	$ 103	$ 246	$ 5,054	$ 10,988	$ 11,457	$ 27,848
Return on Equity	$ 149	$ 479	$ 6,897	$ 12,183	$ 12,703	$ 32,411
Total Return	$ 252	$ 745	$ 12,283	$ 23,373	$ 24,371	$ 61,024
OM&A	$ -	$ -	$ 5,099	$ 8,709	$ 13,015	$ 26,823
Amortization	$ 228	$ 970	$ 13,488	$ 29,097	$ 33,189	$ 76,972
Grossed-up PILs	$ 73	$ 2	$ 2,382	$ 2,477	$ 3,189	$ 8,123
Revenue Requirement	$ 553	$ 1,717	$ 33,252	$ 63,656	$ 73,764	$ 172,942
Interest on Deferred OM&A and Amortization	$ 5	$ 28	$ 120	$ 309	$ 1,186	$ 1,648
Total GS<50 Revenue Requirement	**$ 558**	**$ 1,745**	**$ 33,372**	**$ 63,965**	**$ 74,950**	**$ 174,590**

Table 4e: Disposition Rate Rider to Recover Actual Smart Meter Costs to December 31, 2011 for GS<50 Customer Class

Revenue Requirement 2007	$	558		
Revenue Requirement 2008	$	1,745		
Revenue Requirement 2009	$	33,372		
Revenue Requirement 2010	$	63,965		
Revenue Requirement 2011	$	74,950		
Total Revenue Requirement			$	174,590
Smart Meter Funding Adder Collected from GS<50	-$	117,700		
Carrying Cost on Smart Meter Funding Adder	-$	3,823	-$	121,523
Smart Meter True-up Balance for GS<50 Disposition Rider			**$**	**53,067**

Table 4f: Calculation of Disposition Rate Rider for GS<50 Customer Class

	GS<50
Total Smart Meter True-up for Disposition	$ 53,067
Number of Customers	1,562
Total Monthly Disposition Rate Rider	**$ 2.83**

Lakeland has summarized the 2012 Revenue Requirement and Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR) for the Residential customer class in Tables 4g and 4h. The 2012 Revenue Requirement and Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR) for the GS<50 customer class are summarized in Tables 4i and 4j.

Table 4g: Revenue Requirement Calculation for Incremental Revenue Requirement Rate Rider for Residential Customer Class

Rate Base	2012 Amount
Net Fixed Assets	$ 1,442,493
Working Capital Allowance	$ 13,340
Total Rate Base	**$ 1,455,833**

Revenue Requirement	2012 Amount
Short Term Interest	$ 775
Long Term Interest	$ 42,068
Return on Equity	$ 46,645
Total Return	$ 89,488
OM&A	$ 88,931
Amortization	$ 135,701
Grossed-up PILs	$ 19,105
Total RESIDENTIAL Revenue Requirement	**$ 333,225**

Table 4h: Calculation of Incremental Revenue Requirement Rate Rider for Residential Customer Class

	Residential
Total Revenue Requirement	$ 333,225
Number of Customers	8,055
Total Monthly Incremental Revenue Requirement Rate Rider	**$ 3.45**

Table 4i: Revenue Requirement Calculation for Incremental Revenue Requirement Rate Rider for GS<50 Customer Class

Rate Base	2012 Amount
Net Fixed Assets	$ 370,177
Working Capital Allowance	$ 2,598
Total Rate Base	**$ 372,775**

Revenue Requirement	2012 Amount
Short Term Interest	$ 198
Long Term Interest	$ 10,772
Return on Equity	$ 11,944
Total Return	$ 22,914
OM&A	$ 17,319
Amortization	$ 33,805
Grossed-up PILs	$ 4,782
Total GS<50 Revenue Requirement	**$ 78,820**

Table 4j: Calculation of Incremental Revenue Requirement Rate Rider for GS<50 Customer Class

	GS<50
Total Revenue Requirement	$ 78,820
Number of Customers	1,565
Total Monthly Incremental Revenue Requirement Rate Rider	**$ 4.20**

Lakeland has summarized the change in SMDR and SMIRR by customer class based upon VECC's cost allocation by customer class request as compared to Lakeland's original revenue requirement allocation by customer class in Table 4k, 4l and 4m below.

Table 4k: Disposition Rate Rider by Class REVISED for VECC's Cost Allocation Request

	SMDR ORIGINAL	SMDR REVISED	Inc/(Dec)
Residential	$ 1.20	$ 1.07	-$ 0.13
GS<50	$ 2.21	$ 2.83	$ 0.62

Table 4l: Incremental Revenue Requirement Rate Rider by Class REVISED for VECC's Cost Allocation Request

	SMIRR ORIGINAL	SMIRR REVISED	Inc/(Dec)
Residential	$ 3.17	$ 3.45	$ 0.28
GS<50	$ 5.61	$ 4.20	-$ 1.41

Table 4m: Combined Rate Riders by Class REVISED for VECC's Cost Allocation Request

	ORIGINAL SMDR + SMIRR	REVISED SMDR + SMIRR	Inc/(Dec)
Residential	$ 4.37	$ 4.52	$ 0.15
GS<50	$ 7.82	$ 7.03	-$ 0.79

VECC Question # 13

Reference: Board Guideline G-2011-0001, Smart Meter Funding and Cost Recovery – Final Disposition, dated December 15, 2011, Page 19

Preamble: The Guidelines state, "The Board also expects that a distributor will provide evidence on any operational efficiencies and cost savings that result from smart meter implementation."

a) Please comment.

Response

a) Lakeland has identified one source of cost savings resulting from the implementation of smart meters. This is the elimination of monthly manual walk-up reads of old conventional meters, an estimated savings of $7,000 per month. However, this savings has been offset by the incurrence of incremental monthly smart meter network, data communication and operating costs which total an estimated $8,850 more per month. These incremental monthly costs include: fees to manage, support and maintain our MAS server and electronic meter read data; fees to analyze, validate, estimate and edit monthly meter read data to ensure accurate billing data for the MDM/R; incremental costs to trouble shoot and remedy meters and other communication devices (collectors and repeaters) with communication issues; fees to operate the communication network between the MAS server and collector and meter data; fees to conduct an annual security audit and costs for system changes incurred as per the audit results; costs for MDM/R sync operation and MDM/R version upgrade testing and integration consulting; and software maintenance and support fees to operate the web presentment platform for online access to usage and bill data for customers. In addition to these, the IESO has proposed to charge LDC's an additional estimated cost of $0.51 per meter per month for MDM/R operating fees starting mid 2012, which have not been included in the costs above.

   Lakeland has noted a few operational benefits due to the implementation of the smart meter network however these have no quantifiable financial value, just informational value. These include such things as having access to current, up to date outage information specific to a meter location, a time and duration of the outage. This aids operations personnel in tracking high frequency trouble areas in the distribution system to aid in asset management. This real-time usage information also assists operations in identifying any meter tampering activity as the system triggers when a meter has been touched. This allows Lakeland the opportunity to investigate the meter location immediately as opposed to addressing any tampering, long after the fact, when the only flag was often only upon notification by the

police. Lakeland has also identified the value of obtaining voltage information from the smart meter data, helpful for analyzing and planning for system optimization. This will help improve the safety and reliability of Lakeland's distribution system and thus customer satisfaction.

VECC Question # 14

Reference: Board Guideline G-2011-0001, Smart Meter Funding and Cost Recovery – Final Disposition, dated December 15, 2011, Cost Beyond Minimum Functionality, Page 17

Preamble: The Guideline indicates that costs for TOU rate implementation, CIS upgrades, web presentation, etc. may be recoverable and that in its application a distributor should show how these costs are required for its smart meter deployment program and how they are incremental to the distributor's normal operating costs. Sheet 2 of the Smart Meter Model shows audited costs under Capital Costs Beyond Minimum Functionality (category 1.6.3) & OM&A Costs Beyond Minimum Functionality (category 2.6.3) for 2009, 2010, 2011 and unaudited costs for 2012.

a) Please demonstrate how these costs are incremental to normal operating costs.

Response

a) Table 5 summarizes the incremental capital and OM&A costs that Lakeland has reported for TOU rate implementation, CIS upgrades and web presentation in categories 1.6.3 and 2.6.3 in the Smart Meter Model. All of the costs identified in Table 5 below are incurred as a result of implementing smart meters. Lakeland had to incur incremental costs to establish the communication link between the web presentment platform and meter usage data via an AS2 link. Lakeland's billing staff required systems training to understand and troubleshoot the new flow of meter data from the ODS and MDM/R and new processes required to import and bill the smart meter interval and TOU data to the customers. Incremental costs were incurred to upgrade Lakeland's billing software to integrate with the MDM/R and to bill the customer on TOU interval groupings and rates versus the old 2 tiered fixed pricing. Web presentment costs were incurred in preparation of proposed regulatory requirements of providing customers with access to up to date daily usage information and to improve customer satisfaction with instant access to billing information. In an effort to educate Lakeland's customer base with information on the provincially mandated smart meter program and the impact of TOU billing,

Lakeland incurred incremental costs to host meetings and mail out bill impact change calculations and energy management tips. None of these costs would have been incurred if Lakeland was still operating with conventional meters and billing customers on old 2 tiered RPP pricing and are thus, all considered to be incremental to normal operating costs.

Table 5: Summary of Incremental Costs Beyond Minimum Functionality

Incremental Costs Beyond Minimum Functionality	2007-2011	2012	Total
Smart Meter Network Communication (AS2)	$ 20,629	$ -	$ 20,629
MDM/R Process Development and Training	$ 18,183	$ -	$ 18,183
MDM/R to Billing System Integration	$ 17,600	$ -	$ 17,600
Web Presentment	$ 44,607	$ -	$ 44,607
TOU Customer Education	$ 15,523	$ -	$ 15,523
Total Incremental Capital Costs Beyond Minimum Functionality (1.6.3)	$ 116,542	$ -	$ 116,542
Smart Meter Network Communication (AS2)	$ 665	$ 1,465	$ 2,130
MDM/R Process Development and Training	$ 9,727	$ 18,750	$ 28,477
MDM/R to Billing System Integration	$ 2,940	$ 1,625	$ 4,565
Web Presentment	$ 5,847	$ 2,550	$ 8,397
TOU Customer Education	$ 8,957	$ 4,500	$ 13,457
Total Incremental OM&A Costs Beyond Minimum Functionality (2.6.3)	$ 28,136	$ 28,890	$ 57,026
TOTAL Incremental Costs Beyond Minimum Functionality	$ 144,678	$ 28,890	$ 173,568

VECC Question # 15

Reference: Manager's Summary, OM&A Cost Analysis, Page 22

a) Please explain why OM&A costs were lower than expected by $200K in 2011 (Table 2 (a) and $110K in 2012 (table 2 (b).

b) Please provide the number of new hires (FTE's) by year to deploy the smart meter program and corresponding costs.

Response

a) Table 6a explains the $200K OM&A cost variance due to lower than expected OM&A costs included in the Total OM&A Costs Related to Minimum Functionality to 2011 submitted in the Smart Meter Cost Recovery application compared to those included in the 2011 IRM application. The main OM&A items contributing to this favourable variance include: completion of the Smart Meter Project Manager position in December 2010 that was not replaced; reduced spending on customer education; delay in Elster Hosted Managed Service fees; postponement of IESO MDM/R operating fees; and the savings on the security audit due to a change in vendor as well as the capitalization of the first security audit in 2011. Some of the costs included in the OM&A costs in the original smart meter costs in the 2011 IRM application were absorbed into normal

operations OM&A costs even though they were partially due to smart meter implementation. This was in an effort to minimize smart meter specific costs and some were not easy to track separately on a transactional detail level.

Table 6a: OM&A Variance Explanation to 2011

OM&A Cost Variance between Smart Meter Cost Application and IRM	2011 OM&A per SM Application	2011 OM&A per IRM Application	Variance (Over)/Under
Contract Labour - meter/meter communication troubleshooting and repair	$ 6,695	$ -	-$ 6,695
Elster Service Agreement Fees - higher meter count	$ 15,778	$ 14,936	-$ 842
Bell Mobility Collector Fees - higher meter count	$ 16,375	$ 15,113	-$ 1,262
Customer Education - overestimated	$ 6,643	$ 20,440	$ 13,797
Smart Meter Program Manager - position ended December 2010	$ -	$ 88,000	$ 88,000
Elster Hosted Managed Services - delay in contract	$ 32,295	$ 50,128	$ 17,833
IESO MDM/R Operating Fees - postponed	$ -	$ 38,825	$ 38,825
ODS Enhancement - not required	$ -	$ 7,700	$ 7,700
IT Consulting Support - not required	$ -	$ 18,990	$ 18,990
Security Audit - capitalized in 2011	$ -	$ 18,700	$ 18,700
eCARe Integration with MDM/R - change in vendor	$ -	$ 5,000	$ 5,000
			$ 200,046

Table 6b explains the $110K OM&A cost variance due to lower than expected OM&A costs included in the Total OM&A Costs Related to Minimum Functionality for 2012 submitted in the Smart Meter Cost Recovery application compared to those included in the 2011 IRM application for 2012. The main OM&A items contributing to this favourable variance include: completion of the Smart Meter Project Manager position in December 2010 that was not replaced; and the postponement of IESO MDM/R operating fees.

Table 6b: OM&A Variance Explanation for 2012

OM&A Cost Variance between Smart Meter Cost Application and IRM	2012 OM&A per SM Application	2012 OM&A per IRM Application	Variance (Over)/Under
Contract Labour - meter/meter communication troubleshooting and repair	$ 6,860	$ -	-$ 6,860
Bell Mobility Collector Fees - higher meter count	$ 6,900	$ 6,000	-$ 900
Smart Meter Program Manager - position ended December 2010	$ -	$ 87,958	$ 87,958
Elster Hosted Managed Services - higher meter count	$ 22,800	$ 21,900	-$ 900
IESO MDM/R Operating Fees - postponed	$ -	$ 28,228	$ 28,228
Security Audit - change in vendor	$ 12,300	$ 15,000	$ 2,700
			$ 110,226

b) For the implementation of the smart meter program, Lakeland had hired one incremental FTE for a 2 year period only. The Smart Meter Program Manager was fully dedicated to the planning, implementation and testing of the smart meter project for 2009 and 2010 only. Table 7 summarizes the FTE costs for the Smart Meter Program Manager which totaled $160,872, $74,842 in 2009 and $86,031 in 2010. This position no longer exists and was not included in ongoing OM&A costs in our original smart meter cost recovery application for 2011 and 2012.

Table 7: Incremental FTE Costs for Smart Meter Implementation

Incremental FTE Costs	2007	2008	2009	2010	2011	2012
# of Incremental FTE's for Smart Meter Implementation	-	-	1	1	-	-
Costs of Incremental FTE's for Smart Meter Implementation	$ -	$ -	$ 74,842	$ 86,031	$ -	$ -

Appendix 1

2012 Smart Meter Model

Sheet 2

Residential

Ontario Energy Board

Smart Meter Model

Lakeland Power Distribution Ltd.

Distributors must enter all incremental costs related to their smart meter program and all revenues recovered to date in the applicable tabs except for those costs (and associated revenues) for which the Board has approved on a final basis, i.e. capital costs have been included in rate base and OM&A costs in revenue requirement.

For 2012, distributors that have completed their deployments by the end of 2011 are not expected to enter any capital costs. However, for OM&A, regardless of whether a distributor has deployments in 2012, distributors should enter the forecasted OM&A for 2012 for all smart meters in service.

Smart Meter Capital Cost and Operational Expense Data	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Unaudited Actual	2012 and later Forecast	Total
Smart Meter Installation Plan								
Actual/Planned number of Smart Meters installed during the Calendar Yea								
Residential	0	0	0	7,570	235	130	120	8055
General Service < 50 kW	0	0	0					0
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW onl	0	0	0	7570	235	130	120	8055
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	93.98%	96.90%	98.51%	100.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed								0
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installe	0	0	0	7570	235	130	120	8055

1 Capital Costs

1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	Asset Type (Asset type must be selected to enable calculations)	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Unaudited Actual	2012 and later Forecast	Total
1.1.1 Smart Meters *(may include new meters and modules, etc.)*	Smart Meter				868,879	40,400	10,592	10,124	$ 929,996
1.1.2 Installation Costs *(may include socket kits, labour, vehicle, benefits, etc.)*	Smart Meter				144,330	36,963	5,552	3,134	$ 189,978
1.1.3a Workforce Automation Hardware *(may include fieldwork handhelds, barcode hardware, etc.)*	Computer Hardware				3,965	388	291		$ 4,645
1.1.3b Workforce Automation Software *(may include fieldwork handhelds, barcode hardware, etc.)*									$ -
Total Advanced Metering Communications Devices (AMCD		$ -	$ -	$ -	$ 1,017,174	$ 77,752	$ 16,435	$ 13,258	$ 1,124,618

1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)	Asset Type	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Unaudited Actual	2012 and later Forecast	Total
1.2.1 Collectors	Smart Meter				111,252	1,248	2,107		$ 114,607
1.2.2 Repeaters *(may include radio licence, etc.)*	Smart Meter				4,794				$ 4,794
1.2.3 Installation *(may include meter seals and rings, collector computer hardware, etc.)*	Smart Meter				18,270	3,376			$ 21,646
Total Advanced Metering Regional Collector (AMRC) (Includes LAN		$ -	$ -	$ -	$ 134,315	$ 4,625	$ 2,107	$ -	$ 141,047

1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Unaudited Actual	Forecast	
1.3.1 Computer Hardware	Computer Hardware				5,417	6,453			$ 11,871
1.3.2 Computer Software	Computer Software				4,863	53,212			$ 58,075
1.3.3 Computer Software Licences & Installation (includes hardware and software) *(may include AS/400 disk space, backup and recovery computer, UPS, etc.)*	Computer Hardware				7,162	14,803	159		$ 22,124
Total Advanced Metering Control Computer (AMCC		$ -	$ -	$ -	$ 17,442	$ 74,468	$ 159	$ -	$ 92,070

1.4 WIDE AREA NETWORK (WAN)	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Unaudited Actual	Forecast	
1.4.1 Activiation Fees									$ -
Total Wide Area Network (WAN)		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Unaudited Actual	Forecast	
1.5.1 Customer Equipment *(including repair of damaged equipment)*	Other Equipment								$ -
1.5.2 AMI Interface to CIS	Computer Software			12,475	1,281				$ 13,756
1.5.3 Professional Fees	Other Equipment		31,987	13,579	16,753	31,229	21,942		$ 115,490
1.5.4 Integration	Other Equipment		3,159	7,305	89,115	81,474	49		$ 181,102
1.5.5 Program Management	Other Equipment					55,365			$ 55,365
1.5.6 Other AMI Capital	Other Equipment					209			$ 209
Total Other AMI Capital Costs Related to Minimum Functionalit		$ -	$ 35,146	$ 33,359	$ 107,149	$ 168,276	$ 21,991	$ -	$ 365,921
Total Capital Costs Related to Minimum Functionality		$ -	$ 35,146	$ 33,359	$ 1,276,081	$ 325,121	$ 40,692	$ 13,258	$ 1,723,657

1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY *(Please provide a descriptive title and identify nature of beyond minimum functionality costs)*	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Unaudited Actual	Forecast	
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Smart Meter								$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Smart Meter								$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.	Other Equipment			20,816	2,653	47,997	26,081		$ 97,546
Total Capital Costs Beyond Minimum Functionalit		$ -	$ -	$ 20,816	$ 2,653	$ 47,997	$ 26,081	$ -	$ 97,546
Total Smart Meter Capital Costs		$ -	$ 35,146	$ 54,175	$ 1,278,734	$ 373,118	$ 66,773	$ 13,258	$ 1,821,202

2 OM&A Expenses

2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Unaudited Actual	Forecast	
2.1.1 Maintenance *(may include meter reverification costs, etc.)*				8,891	5,159	5,604	5,742	$ 25,396
2.1.2 Other *(please specify)*								$ -
Total Incremental AMCD OM&A Costs	$ -	$ -	$ -	$ 8,891	$ 5,159	$ 5,604	$ 5,742	$ 25,396
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)								
2.2.1 Maintenance								$ -
2.2.2 Other *(please specify)*								$ -
Total Incremental AMRC OM&A Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)								
2.3.1 Hardware Maintenance *(may include server support, etc.)*								$ -
2.3.2 Software Maintenance *(may include maintenance support, etc.)*					3,959	9,248	9,492	$ 22,698
2.3.2 Other *(please specify)*								$ -
Total Incremental AMCC OM&A Costs	$ -	$ -	$ -	$ -	$ 3,959	$ 9,248	$ 9,492	$ 22,698
2.4 WIDE AREA NETWORK (WAN)								
2.4.1 WAN Maintenance				2,991	5,205	5,510	5,775	$ 19,481
2.4.2 Other *(please specify)*								$ -
Total Incremental AMRC OM&A Costs	$ -	$ -	$ -	$ 2,991	$ 5,205	$ 5,510	$ 5,775	$ 19,481
2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY								
2.5.1 Business Process Redesign								$ -
2.5.2 Customer Communication (may include project communication, etc.)				5,560				$ 5,560
2.5.3 Program Management								$ -
2.5.4 Change Management (may include training, etc.)				6,815	13,998	14,213	14,363	$ 49,389
2.5.5 Administration Costs					8,467	18,564	19,084	$ 46,114
2.5.6 Other AMI Expenses *(please specify)*							10,295	$ 10,295
Total Other AMI OM&A Costs Related to Minimum Functionality	$ -	$ -	$ -	$ 12,375	$ 22,464	$ 32,777	$ 43,742	$ 111,358
TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	$ -	$ -	$ -	$ 24,257	$ 36,787	$ 53,139	$ 64,750	$ 178,933
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY *(Please provide a descriptive title and identify nature of beyond minimum functionality costs)*	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Unaudited Actua		
2.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06								$ -
2.6.2 Costs for deployment of smart meters to customers other than residential and small general service								$ -
2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.				1,927	7,931	13,692	24,181	$ 47,731
Total OM&A Costs Beyond Minimum Functionality	$ -	$ -	$ -	$ 1,927	$ 7,931	$ 13,692	$ 24,181	$ 47,731
Total Smart Meter OM&A Costs	$ -	$ -	$ -	$ 26,183	$ 44,718	$ 66,831	$ 88,931	$ 226,664

3 Aggregate Smart Meter Costs by Category

3.1	**Capital**										
3.1.1	Smart Meter	$ -	$ -	$ -	$ 1,147,524	$ 81,988	$ 18,251	$ 13,258	$ 1,261,021		
3.1.2	Computer Hardware	$ -	$ -	$ -	$ 16,544	$ 21,645	$ 451	$ -	$ 38,639		
3.1.3	Computer Software	$ -	$ -	$ 12,475	$ 6,144	$ 53,212	$ -	$ -	$ 71,831		
3.1.4	Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		
3.1.5	Other Equipment	$ -	$ 35,146	$ 41,700	$ 108,521	$ 216,273	$ 48,071	$ -	$ 449,711		
3.1.6	Applications Software	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		
3.1.7	**Total Capital Costs**	**$ -**	**$ 35,146**	**$ 54,175**	**$ 1,278,734**	**$ 373,118**	**$ 66,773**	**$ 13,258**	**$ 1,821,202**		
3.2	**OM&A Costs**										
3.2.1	**Total OM&A Costs**	**$ -**	**$ -**	**$ -**	**$ 26,183**	**$ 44,718**	**$ 66,831**	**$ 88,931**	**$ 226,664**		

Appendix 2

2012 Smart Meter Model

Sheet 2

GS <50 kW

Ontario Energy Board

Smart Meter Model

Lakeland Power Distribution Ltd.

Distributors must enter all incremental costs related to their smart meter program and all revenues recovered to date in the applicable tabs except for those costs (and associated revenues) for which the Board has approved on a final basis, i.e. capital costs have been included in rate base and OM&A costs in revenue requirement.

For 2012, distributors that have completed their deployments by the end of 2011 are not expected to enter any capital costs. However, for OM&A, regardless of whether a distributor has deployments in 2012, distributors should enter the forecasted OM&A for 2012 for all smart meters in service.

Smart Meter Capital Cost and Operational Expense Data	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Unaudited Actual	2012 and later Forecast	Total
Smart Meter Installation Plan								
Actual/Planned number of Smart Meters installed during the Calendar Yea								
Residential	0	0	0	0	0	0	0	0
General Service < 50 kW	0	0	0	1,375	186	1	3	1565
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW onl	0	0	0	1375	186	1	3	1565
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	87.86%	99.74%	99.81%	100.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed								0
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installe	0	0	0	1375	186	1	3	1565

1 Capital Costs

1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	Asset Type (Asset type must be selected to enable calculations)	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Unaudited Actual	2012 and later Forecast	Total
1.1.1 Smart Meters *(may include new meters and modules, etc.)*	Smart Meter				263,949	12,273	3,218	3,076	$ 282,515
1.1.2 Installation Costs *(may include socket kits, labour, vehicle, benefits, etc.)*	Smart Meter				35,632	9,126	1,371	774	$ 46,902
1.1.3a Workforce Automation Hardware *(may include fieldwork handhelds, barcode hardware, etc.)*	Computer Hardware				772	76	57		$ 905
1.1.3b Workforce Automation Software *(may include fieldwork handhelds, barcode hardware, etc.)*									$ -
Total Advanced Metering Communications Devices (AMCD		$ -	$ -	$ -	$ 300,354	$ 21,474	$ 4,645	$ 3,849	$ 330,322

1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)	Asset Type	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Unaudited Actual	2012 and later Forecast	Total
1.2.1 Collectors	Smart Meter				21,665	243	410		$ 22,319
1.2.2 Repeaters *(may include radio licence, etc.)*	Smart Meter				934				$ 934
1.2.3 Installation *(may include meter seals and rings, collector computer hardware, etc.)*	Smart Meter				3,558	658			$ 4,215
Total Advanced Metering Regional Collector (AMRC) (Includes LAN		$ -	$ -	$ -	$ 26,157	$ 901	$ 410	$ -	$ 27,468

1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Unaudited Actual	Forecast	
1.3.1 Computer Hardware	Computer Hardware				1,055	1,257			$ 2,312
1.3.2 Computer Software	Computer Software				947	10,363			$ 11,310
1.3.3 Computer Software Licences & Installation (includes hardware and software) *(may include AS/400 disk space, backup and recovery computer, UPS, etc.)*	Computer Hardware				1,395	2,883	31		$ 4,308
Total Advanced Metering Control Computer (AMCC		$ -	$ -	$ -	$ 3,397	$ 14,502	$ 31	$ -	$ 17,930

1.4 WIDE AREA NETWORK (WAN)	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Unaudited Actual	Forecast	
1.4.1 Activiation Fees									$ -
Total Wide Area Network (WAN)		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Unaudited Actual	Forecast	
1.5.1 Customer Equipment *(including repair of damaged equipment)*	Other Equipment								$ -
1.5.2 AMI Interface to CIS	Computer Software			2,429	249				$ 2,679
1.5.3 Professional Fees	Other Equipment		6,229	2,644	3,263	6,082	4,273		$ 22,491
1.5.4 Integration	Other Equipment		615	1,423	17,355	15,866	10		$ 35,268
1.5.5 Program Management	Other Equipment					10,782			$ 10,782
1.5.6 Other AMI Capital	Other Equipment					41			$ 41
Total Other AMI Capital Costs Related to Minimum Functionalit		$ -	$ 6,844	$ 6,496	$ 20,867	$ 32,771	$ 4,283	$ -	$ 71,261
Total Capital Costs Related to Minimum Functionality		$ -	$ 6,844	$ 6,496	$ 350,774	$ 69,647	$ 9,369	$ 3,849	$ 446,980

1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY *(Please provide a descriptive title and identify nature of beyond minimum functionality costs)*	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Unaudited Actual	Forecast	
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Smart Meter								$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Smart Meter								$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.	Other Equipment			4,054	517	9,347	5,079		$ 18,996
Total Capital Costs Beyond Minimum Functionalit		$ -	$ -	$ 4,054	$ 517	$ 9,347	$ 5,079	$ -	$ 18,996
Total Smart Meter Capital Costs		$ -	$ 6,844	$ 10,550	$ 351,291	$ 78,994	$ 14,448	$ 3,849	$ 465,977

2 OM&A Expenses

2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Unaudited Actual	Forecast	
2.1.1 Maintenance *(may include meter reverification costs, etc.)*				1,732	1,005	1,091	1,118	$ 4,946
2.1.2 Other *(please specify)*								$ -
Total Incremental AMCD OM&A Costs	$ -	$ -	$ -	$ 1,732	$ 1,005	$ 1,091	$ 1,118	$ 4,946
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)								
2.2.1 Maintenance								$ -
2.2.2 Other *(please specify)*								$ -
Total Incremental AMRC OM&A Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)								
2.3.1 Hardware Maintenance *(may include server support, etc.)*								$ -
2.3.2 Software Maintenance *(may include maintenance support, etc.)*					771	1,801	1,848	$ 4,420
2.3.2 Other *(please specify)*								$ -
Total Incremental AMCC OM&A Costs	$ -	$ -	$ -	$ -	$ 771	$ 1,801	$ 1,848	$ 4,420
2.4 WIDE AREA NETWORK (WAN)								
2.4.1 WAN Maintenance				582	1,014	1,073	1,125	$ 3,794
2.4.2 Other *(please specify)*								$ -
Total Incremental AMRC OM&A Costs	$ -	$ -	$ -	$ 582	$ 1,014	$ 1,073	$ 1,125	$ 3,794
2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY								
2.5.1 Business Process Redesign								$ -
2.5.2 Customer Communication (may include project communication, etc.)				1,083				$ 1,083
2.5.3 Program Management								$ -
2.5.4 Change Management (may include training, etc.)				1,327	2,726	2,768	2,797	$ 9,618
2.5.5 Administration Costs					1,649	3,615	3,716	$ 8,980
2.5.6 Other AMI Expenses *(please specify)*							2,005	$ 2,005
Total Other AMI OM&A Costs Related to Minimum Functionality	$ -	$ -	$ -	$ 2,410	$ 4,375	$ 6,383	$ 8,518	$ 21,686
TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	$ -	$ -	$ -	$ 4,724	$ 7,164	$ 10,348	$ 12,610	$ 34,846
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY *(Please provide a descriptive title and identify nature of beyond minimum functionality costs)*	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Unaudited Actua		
2.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06								$ -
2.6.2 Costs for deployment of smart meters to customers other than residential and small general service								$ -
2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.				375	1,545	2,666	4,709	$ 9,295
Total OM&A Costs Beyond Minimum Functionality	$ -	$ -	$ -	$ 375	$ 1,545	$ 2,666	$ 4,709	$ 9,295
Total Smart Meter OM&A Costs	$ -	$ -	$ -	$ 5,099	$ 8,709	$ 13,015	$ 17,319	$ 44,141

3 Aggregate Smart Meter Costs by Category

3.1	**Capital**										
3.1.1	Smart Meter	$ -	$ -	$ -	$ 325,738	$ 22,299	$ 4,999	$ 3,849	$ 356,885		
3.1.2	Computer Hardware	$ -	$ -	$ -	$ 3,222	$ 4,215	$ 88	$ -	$ 7,525		
3.1.3	Computer Software	$ -	$ -	$ 2,429	$ 1,197	$ 10,363	$ -	$ -	$ 13,989		
3.1.4	Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		
3.1.5	Other Equipment	$ -	$ 6,844	$ 8,121	$ 21,134	$ 42,118	$ 9,362	$ -	$ 87,578		
3.1.6	Applications Software	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		
3.1.7	**Total Capital Costs**	**$ -**	**$ 6,844**	**$ 10,550**	**$ 351,291**	**$ 78,994**	**$ 14,448**	**$ 3,849**	**$ 465,977**		
3.2	**OM&A Costs**										
3.2.1	**Total OM&A Costs**	**$ -**	**$ -**	**$ -**	**$ 5,099**	**$ 8,709**	**$ 13,015**	**$ 17,319**	**$ 44,141**		